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ABSTRACT

To help educators obtain more specific comparative data on preschool programs, this paper develops some common constructs for the objective assessment of any program. The constructs proposed are: (1) density, the total amount of sensory stimulation encountered within a given time span; (2) variety, the extent to which the program provides encounters to diverse stimuli/situations; (3) complexity, the extent to which children encounter stimuli/situations in their natural complex state as compared with encountering prepared simplified versions; (4) sequence, provision for future encounters and/or emphasis given to previous experience; (5) regularity, the extent to which a pattern of encounters recurs on a daily or weekly basis; (6) emergence, extent to which new materials are introduced as the program progresses and/or which expectations for use of materials and interactions are altered during the program; (7) uniformity, extent to which children within a program have similar encounters; (8) contrast; (9) pacing; (10) scope, and (11) controllability. The consideration of dimensions would facilitate the combination of various aspects of several programs to produce programs more closely tailored to a child's assessed personological characteristics or stage of development. (Author/AJ)

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ANALYSIS OF EARLY CHILDHOOD PROGRAMS: A SEARCH FOR COMPARATIVE DIMENSIONS

by

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Early childhood programs seem generally to be considered in terms of their overall configuration. There is, for example, a concensus among professionals that the Academic Preschool, as conceived by Bereiter and Engelmann, is different from a Montessori program and that both are different from Nimnicht's New Nursery School. These differences are usually described in terms of some striking distinguishing features from within the overall recognizable configuration. Nominal designators of these striking differences often constitute the extent of program comparisons, despite the fact that there may be other less obvious ways in which these programs differ which are fully as relevant to children's development. Further, the ways in which these and other prototypic programs are alike receive little recognition.

Few program adopters, or even program evaluators, go beyond the recognition and nominal designation of the general configuration of programs to determine the less striking ways in which programs are alike or different. What would be required to accomplish this are common constructs or dimensions allowing objective assessment of any program on series of continua. If such conceptual schemata were available, both the design and evaluation of programs would be facilitated. What is presented on the following pages is not, in any sense, to be considered a "fait accompli" listing of dimensions which should be used for these purposes. The dimensions proposed and discussed must be considered illustrative--for the purpose of stimulating effort toward the development of constructs which facilitate a more analytic view of programs than has previously been possible.

Comparison of Prototypic Preschool Programs on Selected Dimensions

Our objective is to identify relatively content and/or value free constructs

to be used in considering programs which would eventually allow consideration of content-oriented issues along a series of objective continua. To launch into the task, consider the following constructs: DENSITY, VARIETY, COMPLEXITY, SEQUENCING, REGULARITY, EMERGENCE, UNIFORMITY, CONTRAST, PACING, SCOPE, CONTROLLABILITY. Each of these will be used in an attempt to examine some of the highly publicized preschool programs. Of course, since systematic comparison on most of these dimensions has not been attempted, there is no way of determining the accuracy of the guesses that will be made about specific programs. The concern here, at any rate, is the process, not the accuracy, of the judgments and, although the reader may disagree with the following assessments, disagreements only serve to emphasize the need for obtaining some comparative data. This is, of course, essentially the point of the paper.

Density. First, consider how programs vary on a dimension such as DENSITY. DENSITY is used here to refer to the total amount of sensory stimulation encountered within a given time span. We would probably agree unanimously that programs do vary substantially on this dimension. Would we also agree that a Montessori program and the typical "child-development oriented" nursery school would both be high on a program comparison continuum for this dimension? It is probably that the latter would offer more in auditory stimulation. How would these compare with academic readiness preschool programs? Would the Bereiter-Engelmann program, for example, have a high density of auditory stimulation and low density of other kinds of stimulation?

Of course, it is important to ask whether density might be expected to

make any difference. For example, Kagan (1968), Deutsch (1964), and others emphasize the lack of pacing of stimulation rather than gross amount as contributing to deficits in the disadvantaged. Fowler (1968) stresses the importance of following cues from the child for comfortable levels and rates of assimilation of stimuli. One suspects, however, that we still know very little about providing the appropriate pacing of amounts of stimulation for different modalities for children of various ages, stages, inclinations, physical states, etc., since we can only hazard very rough estimates as to how some of the prototypic preschool programs vary in this respect.

Variety. A second dimension VARIETY refers to the extent to which the program provides encounters to diverse stimuli/situations. We said earlier that the Bereiter-Engelmann program provided high auditory stimulation. What about variety of auditory stimulation and variety of stimulation in other modalities? The academically-oriented programs would probably not offer as much planned variety as the child development-oriented programs. We certainly would expect the Montessori program to rank high for variety of tactile modes. Programs such as those conducted at Syracuse University Early Childhood Education Center, New Nursery School, DARCEE Early Training Project, and Britain's primary schools would seem to offer great variety of encounters. The oft-quoted animal studies (Hebb, 1947; Forgays and Read, 1962; Thompson and Heron, 1954) and institutional studies of human development in extremely redundant settings (Skeels and Dye, 1939; Dennis, 1960; Spitz, 1945) probably lead many of us to conclude too quickly that variety per se is desirable. Even as we qualify such a conclusion by specifying that there is, no doubt, an optimal level of variety for a given

individual relative to a given developmental goal and a curvilinear relationship between variety as an input and the outcome criteria, we also hasten to confess that we really have very sketchy ideas as to how total programs generally vary on this dimension. For example, when a graduate assistant pored through our rather extensive file on preschool programs to see what descriptions have to say about how size discriminations are developed, she learned that the Institute of Developmental Studies involves children in stacking seriated rings, in calculating relative length of straws, comparing their own size in mirrors, stacking blocks and comparing heights of stacks, measuring with Cusinaire rods, building with large building units; discussing which of Lego bricks is taller and shorter while child touches and talks about each; comparing size of coins, comparing block lengths with toys such as fire trucks, comparing toys such as fire trucks and small automobiles, etc. By contrast, the program descriptions of another major intervention effort only mentioned learning terms such as large, small, big, little, thick, thin, short, tall and distinguishing between size proportions using pictures of animals. Should we conclude then on the basis of length of lists obtained from the literature that the Institute for Developmental Studies provides more varieties of encounters by which children can learn to make size discriminations than the other? Although this may be the case, we can only conclude that reports of programs, however helpful in certain respects, do not give us much information as to variety of encounters.

Complexity and Sequencing. Programs certainly vary on the dimensions of COMPLEXITY of encounters and SEQUENCING of encounters. Many of the schisms existing in the early childhood education field involve these differences. The

term COMPLEXITY is being used to refer to the extent to which children encounter stimuli/situations in their natural complex state as compared with encountering prepared simplified versions. To some extent, most preschool environments are prepared and simplified, although one can think of exceptions. The other related but distinct dimension has to do with whether these simplified encounters are also SEQUENCED to provide preparation for future encounters and/or to give emphasis to previous experiences. We immediately think of the Montessori programs as high on sequencing and manipulation of complexity factors. Would we also consider the Bereiter-Engelmann program to be high in sequencing and the altering of complexity in verbal and academic areas? Responsive environments such as O.K. Moore's "Talking Typewriter" are characterized, in part, by simplification through selection processes and sequencing dimensions. The Infant Stimulation Series of the Florida Parent Education Project is to a lesser extent a simplifying and sequencing of some encounters on a pre-planned systematic basis. By contrast, the children in the Early Training Project probably have fewer encounters having these characteristics while children enrolled in the Elliott Pearson Nursery School have still fewer. The Sprigle "Learning to Learn" program is interesting in its combination of a general classroom program providing comparatively complex and unsequenced encounters plus small group instructional sessions during which encounters are greatly simplified and highly sequenced.

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Regularity. Let us define REGULARITY as the extent to which a pattern of encounters recur on a daily or weekly basis. Most of us assume that a degree of regularity is a positive thing and nearly all programs profess a predictable

pattern of encounters. The pertinent questions are to what extent these patterns regulate the behavior of children and to what extent variations in the pattern are accommodated--for either the total group or for individual children. How do the programs you know well compare on these dimensions?

Emergence. One of the many other possible ways programs can systematically vary is the extent to which new materials are introduced as the program progresses and/or the extent to which expectations for use of materials and interactions are altered during the course of the program. Although these could be labelled as EMERGENCE, they are actually two separate dimensional streams. For example, in the Montessori program, new materials are introduced constantly, although expectations for use of the old materials do not essentially change over the course of the program. On the other hand, in many other nursery school programs nearly all equipment is present from the first but the expectation for use changes over the school year.

Uniformity. The construct UNIFORMITY refers to the extent to which children within a program have similar encounters. Although it may be enlightening to review the judgments already formed of known preschool programs on this dimension, again, there is no data to document our impressions.

It would seem that the kind of diversity that has come into existence in preschool education in the past few years should provide us with fruitful insights as to ways of varying programs along different dimensions and generating new productive combinations. Unfortunately, as yet, at least in the published

literature, we seem not to have any hooks into the kinds of constructs discussed in this paper.

Dimensions for Analysis of Language Environments

Next consider a more specific program area, namely, the specific provision of language development in preschool programs. We will again employ some dimensional constructs to focus more precisely than is usually the practice on the language environments encountered in programs by young children. We can compare programs, for example, on the dimensions of (1) VARIETY through such items as--how many different people interact verbally with children? How many languages are spoken? How many other types of verbal media are encountered, i.e., TV, Language Master, tape recordings, live telephones (2) CONTRAST--to what extent do children hear contrasting dialects, both men's and women's voices, sung and spoken language? (3) DENSITY--what is the total volume of speech heard? (4) COMPLEXITY--what is the level of complexity of vocabulary and sentence structure? (5) PACING--to what extent is language interaction continuous or discontinuous on some determinable basis? (6) SCOPE--to what extent do language interactions involve different topics, concerns? (7) CONTROLLABILITY--to what extent is speech merely accessible and initiated by a child's action or unavoidable and demanding of response? (8) INTENSITY--to what extent is that which is dealt with in language interaction of significance to the child? For example, how often is language directed specifically to him? How often does it affect his activity--either positively by enhancing and facilitating or negatively by restricting or curtailing?

To employ these dimensions, let us focus on the Bereiter-Engelmann approach

again. This program provides encounters verbally with several different people, in which there has been typically contrast of dialect, sex of speaker (and therefore pitch) and rhythmic patterns. The complexity of vocabulary and sentence structure are carefully preplanned and controlled. Children have relatively little control over the language encountered and responses are demanded of them. The speech used is high in clarity with effort made to insure that referents are known and consistently expressed.

The Montessori program, by contrast, would be more likely to be characterized by low variety of number of different speakers encountered. There might be contrast in dialect but probably little contrast in pitch, volume, etc. The scope with which verbalizations are concerned would likely be limited. One would expect low density of total speech, high clarity of speech and relatively low intensity.

Many of us despair over the dismal public school kindergartens and primary classes we all too frequently encounter. There is little variety of language source (even counting the omnipresent intra-school communications system voices), very low language density due to suppression of any natural language interchange, little contrast, low complexity (with the exception of stories read to children). A very limited number of topics are talked about; children have little control over the language other than avoiding what is there through escape into fantasy. The general lack of expectation for an individual response does allow that kind of escape. The intensity of language interchanges seems low despite the occasional negative consequences for children of missing a teacher direction. Since the research on language development would seem to favor modelling of full grammatical

sentences in direct interchanges with the child (Cazden, 1965) to which he must make a response (Lavatelli, 1968), the observed kindergarteners are probably being deprived of the language richness of their homes and neighborhoods--whatever these are--by the necessity for being in school. These kinds of charges have been made about similar classrooms repeatedly. The additional point to be made here is that such teachers might gain new perspectives on ways of evaluating their own programs,were some comparative dimensional schema available to them on language environments. Without new perspectives, there is no reason why teachers should question the traditional configuration in which "quiet" and "teacher monologue" are the standard procedure.

Value of Dimensions in "Assumption-Analysis"Regarding Programs

Although programs are usually adopted on a "whole piece" basis rather than constructed, there would seem to be no reason why combinations according to tailor-made criteria should not be concocted. Consideration of dimensions may facilitate this. For example, if one considers sequencing as a single dimension of program, there is the likelihood of concluding that it might be desirable to expose children to a high degree of sequencing and simplifying of encounters at certain times and to provide exposure to a high degree of complexity at other times. It may then become necessary to recognize that one has been holding an assumption, perhaps unnecessarily, that a teacher and children must be assigned to their own permanent quarters while another set of teacher and children are similarly assigned to identical quarters across the hall. Why not equip one setting as an environmentally structured task-oriented setting and the other as an expressive center with all sorts of media for encouragement of social interaction, experimentation and expression? Various ways of rotating whole

classes with teachers could then be established if the maintenance of personnel and pupil composition was deemed desirable.

Our ongoing disagreements over the extent to which "structuring" should occur in preschool programs often seems to be leading to more firmly entrenched convictions and more stereotyped programs and away from reasonable combinations in programs. Probably "structure", like "program", is too global a term to allow productive comparisons between programs or consideration of how to arrange programs better. On the other hand, considerations on a more precise level of dimensions allow former assumptions to be analyzed and, in some instances, new and preferable programs to emerge.

Let us further examine how our existing assumptions may prevent us from arranging program encounters differently. What do many of us assume about a classroom situation in regard to density and variety of stimulation? When we stop to consider these as dimensions, we would have to conclude that we evidently assume that the appropriate environment is a bland, colorless, uncluttered, hard-surfaced one; how else have we acquired so many of this kind? Do you know of preprimary teachers who prefer not to have sand tables, easels, work benches, ceramic clay, etc.? Or, once available, have you watched all that kind of "messy" and "noisy" equipment sitting unused for major portions of the program year while children were talked at, kept waiting in lines, and asked to sit and "look at books"--endlessly. What different assumptions would allow us to rearrange the space we now have available to us so that there could be some richly stimulating spaces despite concomitant mess and noise--along with some empty, quiet, colorless spaces? A consideration of dimensions of density and variety of stimulation in planning and evaluation might lead to programs constructed to

include possible high density of stimulation but with pupil control through mechanisms such as the provision of contrast areas of sensual blandness--in the style of Leonard's Education and Ecstasy (1968).

Consideration of regularity as a separate dimension in regard to programs may lead to profitable examination of present practice and possible alternative arrangements. Most of us hold some assumptions about the regularity of school encounters. It has evidently been assumed that snacks, rest, outdoor play should be regularly offered and, not only that, must be regularly partaken of. How often have you heard a teacher of Head Start or nursery school say to her children "Whenever you'd like to have juice and crackers, they are at the table" in contrast to "Put your work away, everyone. It's juice time." Similarly, many of us have come to assume that program hours must be from 9 to 12, 12:30 to 3:00 or some such typical time and that all children should come every day at the beginning and leave at the end--unless they are ill. Considering the dimension of regularity and possible variations causes one at least to question the necessity for this kind of regularity for all children, should such a program run counter to observed individual needs for stimulation, pacing, etc.

It is also interesting to contemplate what undifferentiated assumptions we have held about the way a nursery school or kindergarten or Head Start or Day Care Center should be like that prevents us from considering "Emergence" as a focus of our efforts. Most of us who have worked with young children have liked our operation to "look" pretty much the same at the beginning of a school year as at the end and have felt some frustration until it begins to do so. Consideration of emergence as a possible dimension on which programs may vary considerably encourages new assumptions.

There are so many things we assume about the way teachers should be, the way children should be, the way schools should be that prevent us from even considering different and promising combinations. Taking a dimensionalized look at various school operations facilitates assumption-analysis, which, in turn, leads to profitable fantasizing about what preschools could be in contrast to what they are.

A dimensionalized conception of programs could conceivably also lead to conditions in which programs could be more closely tailored to a child's assessed personological characteristics or stage of development. Such a state of affairs is to be greatly desired since there seems to be no evidence to date, nor reason to believe, that any set of program circumstances is optimal for all children or optimal for any single child through all of his growing years. It would, in fact, seem to be in keeping with Piaget's formulations and Hunt's (1961) conception of "the match" that there would undoubtedly be differences and/or changes in what constitutes optimal programming. Preliminary evidence supportive of a learner-setting match is reviewed by Hunt (1970).

Many of us seem to agree that schools have all too often been like the phrase I associate with Simon and Garfunkel--"a scene badly written in which I must play." As we progress toward universal preschool education for all children, it would seem important to monitor programs constantly according to the relationships between salient dimensions and effects on children. The assumptions we hold in program design may very well be valid but they may also be amiss and failing to create "the good scene" we really want for young children. The particular dimensions proposed in this paper may not be adequate--but some similar kinds of constructs allowing a more analytic examination of what we arrange for children's programs are greatly needed.

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